**Title of the Project :** FeedChain – Smart Donation And Leftover Food

Mapper

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**ABSTRACT**

Food wastage and hunger continue to be two major global challenges that often coexist despite technological and economic progress. Every day, large quantities of edible food are discarded, while countless individuals remain food insecure. To address this imbalance, FeedChain has been developed as a Flutter-based mobile application that facilitates efficient food redistribution between donors and receivers in real time. The system serves as a bridge connecting people who have surplus food with those in need, fostering community collaboration to reduce waste and hunger. The application is built using Flutter for a seamless cross-platform experience and integrated with Firebase for secure authentication, real-time cloud storage, and scalability. Users can register or log in, post available food donations, or raise requests for food assistance. The integration of Google Maps APIs enables geolocation tracking and visualization of donation and request points on an interactive map. This ensures that users can easily identify nearby food availability and navigate to the respective locations using the “Show Directions” feature. FeedChain’s backend architecture leverages Cloud Firestore for managing dynamic user data and Firebase Authentication for secure access control. The use of Geolocator Services ensures accuracy in capturing user coordinates, while the intuitive interface allows easy interaction even for non-technical users. Donors can provide details such as food type, quantity, and expiry date, and receivers can view the listings in real time, ensuring transparency and quick communication. By integrating modern cloud and mapping technologies, FeedChain contributes toward the United Nations Sustainable Development Goal (SDG) 2 – Zero Hunger by promoting food equity and sustainability. The system’s modular architecture allows for future enhancements such as AI-based matching, donation analytics, and NGO partnerships. Ultimately, FeedChain aims to reduce food wastage, streamline redistribution efforts, and create a socially responsible ecosystem where technology serves humanity for a greater cause.